UNITED STATES PATENT AND TRADEMARK OFFICE

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10/629,682	07/30/2003	Mark Koops	Q76276	6552

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19FEB2008_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-11_ is/are pending in the application.
     4a) Of the above claim(s) _3 and 4_ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-2, 5-11_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☐ All   b)☐ Some * c)☐ None of:
         1.☐ Certified copies of the priority documents have been received.
         2.☐ Certified copies of the priority documents have been received in Application No. _____.
         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37

CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for

continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely

paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 19FEB2008 has been entered.

Claims 1-2 and 5-11 are pending. **Claims 3-4** have been canceled by Applicant.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section
> 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the
> subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

3.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966),

that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a)

are summarized as follows:

>   1.   Determining the scope and contents of the prior art.
>   2.   Ascertaining the differences between the prior art and the claims at issue.
>   3.   Resolving the level of ordinary skill in the pertinent art.
>   4.   Considering objective evidence present in the application indicating obviousness or
>   nonobviousness.

4.   This application currently names joint inventors. In considering patentability of the claims

under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was

commonly owned at the time any inventions covered therein were made absent any evidence to the

contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and

invention dates of each claim that was not commonly owned at the time a later invention was made

in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35

U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5.   **Claims 1-2 and 5-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Galis et**

al. (US Patent # 5,175,800) in view of **Bimm et al. (US Patent # US 6,901,440 B1).**

        a) Consider **claim 1,** Galis et al. clearly show and disclose, a network management system

for implementing a service on a network (abstract, column 5 lines 38-49, column 9 lines 25-30,

column 11 lines 23-30), said network management system comprising: means for acquiring policy

rules for configuring said service (figure 9 b, abstract, column 5 lines 38-45, column 13 lines 23-33,

column 24 lines 8-16, column 32 lines 7-11); means for determining commands corresponding to

said policy rules (column 13 lines 23-33); means for transmitting the determined commands to

network elements of the network (abstract, column 5 lines 45-49, column 11 lines 54-60); and means

for inferring said policy rules in order to determine said commands (figure 9b, column 13 lines 23-

33, column 32 lines 7-11); wherein said policy rules comprise services rules which create a service in

the network (column 9 lines 30-45, column 10 lines 39-45, column 46 lines 40-45) and

implementation rules (column 14 lines 21-35 lines 38-42, column 17 lines 58-63), wherein said

implementation rules for creating said service comprise technology rules and equipment rules (figure

9b, figure 9c, abstract, column 14 lines 21-35 lines 38-42, column 17 lines 58-63, column 46 lines 40-

66, column 47 lines 25-29), and wherein the technology rules model expert know-how and specify

how to determine technology to use in the service being created based on stored attributes of

equipment in the network and stored attributes of the service (abstract, column 24 lines 8-16,

column 42 lines 40-53, column 46 lines 40-66, column 47 lines 25-29). However, Galis et al. does

not specifically mention creating a service.

Bimm et al. show and disclose a scalable, high-performance universal service activation

system and method for activating service(s) on a network management system/EMS or other

information management system with universal or generic informational changes entered in a service

provisioning system(s) wherein a service is created based on implementation rules for the service

and network element attributes (figure 5, abstract, column 2 lines 66-97, column 3 lines 1-6, column

4 lines 1-20 lines 35-55, column 9 lines 10-45 lines 56-67, column 10 lines 1-8, column 11 lines 63-

65).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the

invention was made to incorporate the teachings of Bimm et al. into the system of Galis et al. for the

purpose of creating services on a network.

b) Consider **claim 2,** and **as applied to claim 1 above,** Galis et al. as modified by Bimm et

al. clearly show and disclose, the network management system claimed in claim 1, wherein said

inference means comprises an inference engine provided in the network management system and

external to the network comprising the network elements (figure 9B, abstract, column 13 lines 23-

33, column 32 lines 7-11).

c) **claim 3** (canceled)

d) **claim 4** (canceled)

e) Consider **claim 5,** and **as applied to claim 1 above,** Galis et al. as modified by Bimm et

al. clearly show and disclose, the network management system claimed in claim 1, wherein the

service rules are provided externally from the network management system and wherein the service

rules specify conditions and timing for creating the service (figure 9b, column 5 lines 38-45, column 9 lines 30-45; Bimm et al. column 11 lines 63-65, column 12 lines 5-15).

f) Consider **claim 6,** and **as applied to claim 1 above,** Galis et al. as modified by Bimm et al. clearly show and disclose, the network management system claimed in claim 4, wherein the technology rules specify which protocol to use for the service based on the attributes of the equipment in the network (column 14 lines 60-67) and wherein the equipment rules model how to select the technology rules based on the attributes of the equipment (column 17 lines 58-63).

g) Consider **claim 7,** and **as applied to claim 1 above,** Galis et al. clearly show and disclose, the network management system claimed in claim 1, wherein the service is created via the service rules independently from specifications of equipment and technology specified in the implementation rules (figure 9b, column 9 lines 30-45, column 13 lines 11-17, column 17 lines 58-63, column 46 lines 40-66, column 47 lines 25-29) and wherein the implementation rules are dynamically implemented after the determining means determines applicable implementation rules (column 13 lines 21-33, column 46 lines 58-66, column 47 lines 25-29).

h) Consider **claim 8,** and **as applied to claim 1 above,** Galis et al. as modified by Bimm et al. clearly show and disclose, the network management system claimed in claim 1, wherein the service is created via the service rules by an operator without requiring specific knowledge of equipment and technology of the network for the service (abstract, column 5 lines 58-61, column 42 lines 40-46, column 46 lines 40-66, column 47 lines 25-29).

i) Consider **claim 9,** and **as applied to claim 1 above,** Galis et al. as modified by Bimm et al. clearly show and disclose, the network management system claimed in claim 1, wherein the implementation rules specify implementation specific details of the service (abstract, column 14 lines 38-42 lines 60-67, column 15 lines 1-7).

j) Consider **claim 10,** and **as applied to claim 1 above,** Galis et al. as modified by Bimm et al. clearly show and disclose, the network management system claimed in claim 1, wherein the implementation rules specify attributes of the service (abstract, column 14 lines 38-42 lines 60-67, column 15 lines 1-7).

6.   **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Galis et al. (US Patent # 5,175,800)** in view of **Bimm et al. (US Patent # US 6,901,440 B1)** and in further view of **Newton (Newton's Telecom Dictionary, VPN, page 982-983).**

a) Consider **claim 11,** and **as applied to claim 1 above,** Galis et al. as modified by Bimm et al. clearly shows and discloses, the network management system claimed in claim 1. However, Galis et al. as modified by Bimm et al. do not specifically disclose the service is a virtual private network.

Newton shows and discloses that a virtual private network is a service that can be implemented on a network (Newton, definition of VPN (virtual private network) page 982-983).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Newton into the system of Galis as modified by Bimm et al. for the purpose of creating a service on a public network with the characteristics of a private network.

Response to Arguments

7.   Applicant's arguments filed 19FEB2008 have been fully considered but they are not persuasive.

Applicant argues, with respect to **claim 1,** "… Galis does not disclose or suggest the policy rules including rules to create a service and rules that specify attributes of the service such that

implementation rules for creating the service include technology rules and equipment rules, and such

that the technology rules model expert know-how and specify how to determine technology to use

in the service being created based on stored attributes of equipment in the network and stored

attributes of the service." and "In Galis, just like in conventional techniques, the user needs to know

the equipment and technology to use, whereas the configuration details are provided by the expert

system."

The Applicant's arguments with respect to policy rules including rules to create a service and

rules that specify attributes of the service have been considered but are moot in view of the new

ground(s) of rejection.

The Examiner respectfully disagrees with Applicant's argument that the system of Galis et al.

requires the user to know the equipment and technology to use. While there are situations discussed

in Galis et al. that would require a user to know specifics about the equipment and technology to use

(i.e. partial or manual configuration by the user) Galis et al. also clearly show and disclose situations

where they user need only enter **basic** parameters or nothing at all. Requiring the user to input

basic parameters is not equivalent to requiring the user to know specifics about the equipment and

technology to use. Galis et al. clearly discloses a system capable of creating a network without user

knowing anything more than the basic parameters of the network to be created by the system and

therefore disclose a system that can be used without the user knowing specifics about the equipment

and technology to use (column 44 lines 29-37, column 46 lines 58-66, column 47 lines 25-29).

Furthermore, regardless of whether or not the system is validating user input or presenting

options for user selection the system of Galis et al. is still capable of applying the rules to create the

network without the user.

Applicant argues, with respect to **claim 5,** that "… there is no disclosure or suggestion of

the service rules being provided externally from the network management system and the service

rules specifying conditions and timing for creating the service."

The Examiner respectfully disagrees with Applicant's argument regarding the rules being

provided externally from the network management system. Galis et al. clearly show and disclose in

the cited passages that the rules can be provided externally from the network management system.

In the first cited passage Galis et al. clearly shows that the database containing the rules for the

network management system (expert system) can be operated separately (externally).

> *"The expert system of the present invention, operating **either jointly or separately**
> from the database system…" (column 5 lines 41-43)*

In the second cited passage Galis et al. clearly show the knowledge engineer (external to the

system) providing procedures, strategies and rules of thumb to the expert system.

> *"**The knowledge engineer** "extracts" from the human experts their procedures,
> strategies, and rules of thumb for problem solving, and **builds this knowledge into** an expert
> system." (column 9 lines 40-43)*

Galis et al. also clearly shows in figure 9b that the network database 908, which provides the

configuration rules, is external to the expert system 918, which manages the network.

Furthermore, it is well known in the art that a database can be provided either internally or

externally to the system that uses it.

The Applicant's arguments with respect to specifying conditions and timing for creating the

service have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues, with respect to **claim 7,** "… there is no disclosure or suggestion of the service rules being independent from the implementation rules and the implementation rules being dynamically implemented."

The Examiner respectfully disagrees with Applicant's argument regarding service rules being independent from the implementation rules and the dynamic implementation of the implementation rules. Applicant's argument with respect to independence from then implementation rules have been considered but are moot in view of the new ground(s) of rejection.

Furthermore, Galis et al. clearly show and disclose that they rules are implemented dynamically. The system of Galis et al. clearly show creating the configuration with partial or no input from the user which indicates the dynamic implementation of rules. If system is able to create the configuration with little or no input from the user then clearly the appropriate implementation rules are determined and then implemented by the system (column 13 lines 21-33, column 32 lines 7-11, column 46 lines 58-66, column 47 lines 25-29). One of ordinary skill in the art would have been able to, at the time the invention was made, incorporate the service rules and ability to create services of Bimm et al. into the expert system of Galis et al. which has the ability to store and apply rules in order to create a system for creating services such as virtual private networks.

Conclusion

1.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

   ➢ US 6,473,748 B1
   ➢ US 2003/0204622 A1
   ➢ 6,079,020
   ➢ US 6,470,384 B1
   ➢ US 6,560,633 B1

> ➢ US 6,577,327 B1
> ➢ US 2002/0083344 A1

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to DANIEL MURRAY whose telephone number is 571-270-1773. The

examiner can normally be reached on Monday - Friday 0800-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Nathan Flynn can be reached on (571)-272-1915. The fax phone number for the organization

where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system,

contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like

assistance from a USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel Murray/
Examiner, Art Unit 2143

/Nathan J. Flynn/
Supervisory Patent Examiner, Art Unit 2154